

lines intersecting each other; a plurality of switchers, provided for the pixel electrodes, for supplying signals from the data lines to the pixel electrode; a gate line driver for scanning the gate lines; a data line driver for driving the data lines, in accordance with the gradation to be displayed; and a controller for controlling the gate line driver and the data line driver, the method comprising the steps of:

detecting that at least one of a video signal, a horizontal synchronization signal, and a vertical synchronization signal is no longer being input to the liquid crystal display device; and

in response to detection that one of the signals is no longer being input to the liquid crystal display device, making all the gate lines active for a predetermined time and supplying the same electric potential as applied to the common electrode to all the data lines for the predetermined time.--

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REMARKS

The abstract has been amended to make editorial changes therein.

Claims 1-7 were rejected as anticipated by YASUI et al. 5,248,963. Claims 1 and 7 have been amended and reconsideration and withdrawal of the rejection are respectfully requested.

Amended claims 1 and 7 provide that the signal absence detector detects that at least one of a video signal, a horizontal synchronization signal, and a vertical synchronization

signal is no longer being input to the liquid crystal display device and that, in response to a detection by the signal absence detector that one of the signals is no longer being input to the liquid crystal display device, the controller outputs a signal to the gate line driver to make all the gate lines active for a predetermined period of time and outputs a signal to the data line driver to supply an electric potential to all the data lines for the predetermined time. In contrast, YASUI et al. disclose a device that detects when power has been turned off. There is no indication that the device includes the signal absence detector and controller in the amended claims. See, for example, column 2, lines 63-68, column 4, lines 49-53 and column 6, lines 33-39.

Since the reference does not disclose all of the claimed features, the amended claims avoid the rejection under §102.

In view of the present amendment, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

KUSANAGI S.N. 09/767,149

Attached hereto is a marked-up version showing the changes made to the abstract and claims. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

YOUNG & THOMPSON

By 

Thomas W. Perkins
Attorney for Applicant
Registration No. 33,027
745 South 23rd Street
Arlington, VA 22202
Telephone: 703/521-2297

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"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

ABSTRACT OF THE DISCLOSURE

The Abstract of the Disclosure has been amended as follows:

The liquid crystal display device [of the present invention comprises:] includes pixel electrodes; a common electrode; a plurality of data lines and a plurality of gate lines intersecting each other; a plurality of switchers[, provided] for the pixel electrodes[, for supplying signals from the data lines to the pixel [electrode] electrodes; a gate line driver for scanning the gate lines; a data line driver for driving the data lines[, in accordance with the gradation to be displayed; and a controller for controlling the gate line driver and the data line driver. The controller [comprises] includes a signal absence detector for detecting that no signal has been input to the liquid crystal display device. The controller outputs a signal to the gate line driver to make all the gate lines active for a predetermined time after the signal absence detector detects that no signal has been input. The controller outputs a signal[, to the data line driver[, to supply an electric potential, applied to the common electrode, to all the data lines for the predetermined time.

IN THE CLAIMS:

Claim 1 has been amended as follows:

--1. (amended) A liquid crystal display device comprising:

pixel electrodes;

a common electrode;

a plurality of data lines and a plurality of gate lines intersecting each other;

a plurality of switchers, provided for the pixel electrodes, for supplying signals from the data lines to the pixel electrode;

a gate line driver for scanning the gate lines;

a data line driver for driving the data lines, in accordance with the gradation to be displayed; and

a controller for controlling the gate line driver and the data line driver, wherein

the controller comprises a signal absence detector for detecting that [no signal has been] at least one of a video signal, a horizontal synchronization signal, and a vertical synchronization signal is no longer being input to the liquid crystal display device, and

wherein, in response to a detection by the signal absence detector that one of the signals is no longer being input, the controller outputs a signal to the gate line driver to make all the gate lines active for a predetermined time [after

the signal absence detector detects that no signal has been input[,] and the controller outputs a signal[,] to the data line driver[,] to supply [an] the same electric potential[,] as applied to the common electrode[,] to all the data lines for the predetermined time.--

Claim 7 has been amended as follows:

--7. (amended) A method for controlling a liquid crystal display device comprising: pixel electrodes; a common electrode; a plurality of data lines and a plurality of gate lines intersecting each other; a plurality of switchers, provided for the pixel electrodes, for supplying signals from the data lines to the pixel electrode; a gate line driver for scanning the gate lines; a data line driver for driving the data lines, in accordance with the gradation to be displayed; and a controller for controlling the gate line driver and the data line driver, the method comprising the steps of:

detecting that [no signal is] at least one of a video signal, a horizontal synchronization signal, and a vertical synchronization signal is no longer being input to the liquid crystal display device; and

in response to detection that one of the signals is no longer being input to the liquid crystal display device, making all the gate lines active for a predetermined time [after the signal absence detector detects that no signal is input;] and

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supplying [an] the same electric potential[,] as applied to the
common electrode[,] to all the data lines for the predetermined
time.--